

Research on the Current Situation and Problems of Digital Economy Trade between China and ASEAN Countries

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Abstract

Digital economy cooperation is an important part of the comprehensive establishment of cooperative partnership between China and ASEAN countries. In recent years, the policy and cooperation development have achieved certain results. Starting from the background of China-ASEAN digital economy and trade, this paper discusses the development status of China-ASEAN digital economy and finds that the two sides have made significant achievements in the improvement of cooperation mechanism, digital infrastructure construction, digital product manufacturing and application, cross-border e-commerce trade, personnel training and other digital economy cooperation. The paper analyzes the risks and challenges of digital economy trade between China and ASEAN countries in the future, such as external environment constraints, unbalanced development of digital economy in ASEAN countries, weak research and development and innovation of digital technology, and imperfect governance system of digital economy. Finally, in view of the potential problems in the future, it puts forward countermeasures, such as the two sides should continue to strengthen cooperation, improve the ability of digital technology research and innovation, and achieve win-win results.

Keywords

China-ASEAN Cooperation, Digital Economy, Belt and Road Initiative

1. Introduction

1.1. China-ASEAN Digital Economy Trade Background

At present, digital economy, as an emerging economic situation, has gradually changed the operation mode and efficiency of economic society, and has become a new driving force for national economic growth. The term “digital economy”

was first proposed by Tapscott (1997), who believed that digital economy explained the relationship between new economy, new business and new technology, and on this basis, the connotation of digital economy was continuously enriched. At present, the widely used definition is “a series of economic activities with digital knowledge and information as key production factors, modern information networks as important carriers, and effective use of information and communication technologies (ICT) to improve efficiency and optimize economic structure”. It can be seen that the ICT industry is the core foundation of the digital economy, digital technology innovation is the driving force for the development of the digital economy, data has become a key production factor, and individuals, enterprises and governments are the main body of digital economic activities.

Under the development of economic globalization, the construction, development and application of digital economy has risen to the national strategic level, and it also affects the social and economic development and people’s living standards, and the competition and cooperation between enterprises in different countries have a significant impact on trade benefits (China’s Ministry of Foreign Affairs Website, 2021). The development of digital trade involves the game of global rules in many fields such as cross-border flow of data, digital taxation, and platform governance. There are conflicts of interest between the vested interests of traditional trade models and the latecomers of digital trade. It is also difficult for developed and developing countries with large gaps in information infrastructure, digital technology, and the construction of digital ecology to reach an agreement on global digital trade rules. In the global digital economy value chain system, developed economies rely on capital, technology and other factors have absolute advantages in capital-intensive industries and technology-intensive industries, and are at the high-end of the value chain, while developing countries led by China mainly rely on labor cost advantages in processing and assembly business, and fall into the dilemma of low-end locking. The United States, which is in the position of “chain master”, has united with its Allies to implement technology monopoly on developing countries such as China, squeeze their industrial upgrading space, and gradually build regional trade rules with “American template” and “European template”. In order to break through the status quo and form a dominant position in rules, China urgently needs to unite developing countries along the “Belt and Road” and form a “Chinese template” of new rules through technological innovation and collaborative cooperation.

The report of the Party’s 20th National Congress pointed out that the digital economy can inject new momentum into promoting high-quality development of the Belt and Road. Since the concept of “Digital Silk Road” was proposed in 2017, The General Secretary has repeatedly deployed its system, relying on the digital “Belt and Road” to carry out cooperation and trade with countries along the route, helping the economic structure of both sides to upgrade and transform, and enhancing the status and benefits of both sides in the global value

chain system. Among them, the trade cooperation between ASEAN and China is in a leading position (Liu & Wang, 2021), China has always been the largest trading partner of Eastern Europe from 2009 to 2023, and Eastern Europe has also maintained the status of China's largest cooperation partner for three consecutive years from 2020 to 2022. Eastern Europe can become a breakthrough in China's digital trade, make up for China's trade shortcomings, and improve the development potential of digital trade.

1.2. Development Status of China-ASEAN Digital Economy and Trade

1.2.1. Cooperation Mechanism

Both China and ASEAN countries attach great importance to the cooperation and development of the digital economy, so a series of policies and systems have been introduced to improve the bilateral trade system. Under the framework of the Belt and Road Initiative, 2020 has been designated as the Year of China-ASEAN Digital Economy Cooperation, and the China-ASEAN Initiative on Establishing a Partnership for Digital Economy Cooperation has been released, committed to building a partnership for digital economy cooperation featuring mutual trust, mutual benefit, inclusiveness, innovation and win-win results. Next, in November 2021, the two sides plan to promote the ASEAN Digital Master Plan 2025 and the China-ASEAN Initiative on Establishing a Partnership for Digital Economy Cooperation, and strengthen cooperation in epidemic prevention and control, digital infrastructure construction and smart cities. In January 2022, the Action Plan to Implement the ASEAN-China Digital Economy Partnership (2021-2025) and the ASEAN-China Digital Cooperation Plan 2022 were finalized, further deepening the top-level policies of the two sides.

1.2.2. Digital Infrastructure

During the cooperation, China has invested in many ASEAN countries to build digital infrastructure such as logistics, communications and digital centers, helping to improve ASEAN'S digital infrastructure. China has on many occasions helped Thailand, Cambodia and Laos build expressways and railways to improve logistics flow. The China-Vietnam, China-Myanmar and China-Laos cross-border optical cables have been completed, and the China-New Zealand Internet data channel has been officially opened. The China-ASEAN Information Port has built infrastructure such as the China-ASEAN (Huawei) Artificial Intelligence Innovation Center, China-ASEAN Blockchain Innovation Center, and China-ASEAN Information Port Roc Ecological Innovation Center, as well as overseas cloud computing centers in Laos, Cambodia, Myanmar and other ASEAN member states.

1.2.3. Digital Product Manufacturing and Application

Under the accelerated adjustment of the global supply chain, Chinese enterprises have increased investment in Southeast Asia's manufacturing industry, of which

electronic products manufacturing is one of the three major investments. Huawei, oppo, vivo, Xiaomi and other smart phones have established sales and service outlets in Southeast Asia, and gradually built factories in Indonesia to achieve localized production. Under the trend of localization, short chain and regionalization of supply chain of electronic products (Hu & Xiong, 2023), Chinese mobile phone manufacturers and Vietnamese enterprises have also expanded the cooperation space. At the same time, China and Asean digital technologies are also applied in cloud services, information technology consulting services, data center services, mobile application services and other fields, deepening the digital trade between the two sides.

1.2.4. Cross-Border E-Commerce Development in Other Places

In recent years, with the rapid development of cross-border e-commerce and e-commerce logistics channels (Liu & Yao, 2021), the level of China-ASEAN e-commerce trade facilitation has been significantly improved, and the scale of e-commerce has developed rapidly. China's sea, land and air transport channels for ASEAN have basically achieved full coverage of major cities, and the Nanning Customs in Guangxi even customized the high seas combined transport transit process with Qinzhou Port as the node in order to ensure the smooth export of e-commerce during the epidemic. Chinese cross-border e-commerce platforms such as TikTok are constantly developing new formats and models to adapt to higher export convenience. At the same time, business-to-business (B2B) cross-border e-commerce market landscape has been further enriched, such as the cloud East Expo platform for normal operation throughout the year, providing online exhibition, supply and demand docking and business negotiations and other functions (Tang, Lu, Luo, & Yu, 2023), cross-border e-commerce scale has grown rapidly.

1.2.5. Digital Economy Personnel Training

Under the framework of the Digital Belt and Road Initiative, ASEAN-China has deepened talent cultivation and innovative application of digital technologies on both sides, enhancing the potential of bilateral trade and international standing. For example, China has set up digital talent training bases such as ASEAN Academy (Thailand) in the ASEAN region, and set up digital talent training programs such as "Future Seeds" to help gather digital talent elements; China has also set up more than 20 joint laboratories or innovation centers in ASEAN member states to promote innovation in information technology, facilitate the application of digital technology in agriculture, medical care and government services in many ASEAN countries through digital technology, and accelerate the digital transformation of their industries.

2. Literature Review

2.1. Digital Economy Industry

Economist Tapscott (Tapscott, 1997) introduced the concept of digital economy,

but did not give a direct definition of it; Mesenbourg believes that the digital economy includes three parts: e-commerce infrastructure, e-commerce and e-commerce; The National Institute of Economic and Social Research divides the digital economy into two parts: “information and communication technology” and “digital content”. At the G20 Hangzhou Summit in 2016, the G20 Digital Economy Development and Cooperation Initiative formulated by China believes that Digital economy refers to a series of economic activities that use digital knowledge and information as key production factors, modern information network as an important carrier, and effective use of information and communication technology as an important driving force for efficiency improvement and economic structure optimization (Wu & Yang, 2023). The digital economy takes digital knowledge and information as key production factors, digital technology as the core driving force, and modern information network as an important carrier. Through the deep integration of digital technology and the real economy, the digital, networked and intelligent level of the economy and society is constantly improved. Accelerate the reconstruction of the new economic form of economic development and governance model (Liu & Yao, 2021).

With the continuous development of science and technology, the concept of digital economy has gradually expanded from the initially narrow and highly digitized industrial links to a more extensive new economic form that can promote the digitalization of the economy. Wu Yilin and Wang Tianqi (Wu & Wang, 2021) pointed out that the core activities of the digital economy revolve around the fields of data mining, storage, transmission, management, calculation, analysis and application, and all the links involved have an important impact on society. More importantly, the digital economy is to realize the digitalization of transactions, exchanges and cooperation through the combination of digital technology and the real economy (Sun & Zhu, 2020), achieve more effective resource allocation while reducing human costs, gradually realize Pareto improvement, and move toward the goal of Pareto optimality.

Since digital technology may be applied to various industries, and there is no uniform definition of the concept of digital economy, it is not easy to clarify the industries involved in the digital economy industry chain (Tian, 2017).

2.2. Digital Economy and Globalization

With the rapid development of the global digital economy, global digital economic governance has gradually become an important part of the international agenda (Tapscott, 1997). Countries have established regulatory systems for digital economy governance, which are characterized by rules-based, agreed-upon cooperation. The digital economic cooperation between China and ASEAN is also gradually advancing in this context. At present, there are two leading systems of global digital economy governance, the United States and Europe, and

Japan, Russia, India and other countries have also created other digital economy development models according to their national conditions.

The development of the existing digital economy governance trade rules has a development direction of “from large to small”. The first is the establishment and development of “mega-FTAs”, multilateral partnership agreements that are gradually starting to incorporate rules in the field of the digital economy. On this basis, the existing rules of the digital economy are still carried out on the basis of existing inter-state relations, especially for countries with close economic and trade cooperation, there is more room for the establishment of digital economy partnership agreements.

For example, the Digital Economy Partnership Agreement established by the United States and Japan (Wu & Wang, 2021), and the negotiations between China and ASEAN to upgrade the Free Trade Area version 3.0, such agreements rely on the existing cooperation results and the principled consensus between the two sides on the development of the digital economy, as well as the deepening and expanding of the existing cooperation.

China’s participation in global digital economy governance is based on this rule-making development path, while carrying out corresponding digital economy governance innovations, taking partnership trade agreements as the main form to seize the opportunities of digital economy governance. China is also following the direction of simultaneous promotion of cooperation between “mega-FTAs” and bilateral partnership agreements, while giving full play to the role of the Belt and Road Initiative, and participating in global digital economy governance with an open attitude. In this context, China and ASEAN, based on the existing cooperation foundation, make full use of the rules and operation of global digital economy governance, and start digital economy cooperation.

The current research mainly focuses on the concept, connotation and trend of the digital economy, while the specific composition, impact and mechanism of the digital economy industrial chain are not deeply studied. In addition, there are also some problems and challenges for the development of the digital economy industry (Yu, 2021), such as digital divide, data security and privacy protection, which need to be further studied and discussed.

The research ideas and structure of this paper are as follows: select the digital economy and trade industry of China-ASEAN, cut from the background, discuss its development status, and analyze the risks and challenges faced by the digital economy and trade of China and ASEAN countries in the future, such as external environmental constraints, unbalanced development of digital economy in ASEAN countries, weak research and development and innovation of digital technology, and imperfect governance system of digital economy (Tian, 2017); finally, in view of the potential problems in the future, the countermeasures are put forward, and a more innovative and practical perspective is provided.

3. Reasons for the Development of China-ASEAN Digital Economy and Trade

China attaches particular importance to trade cooperation with ASEAN in the digital “Belt and Road” mainly for the following reasons.

First, both China and ASEAN have a sound economic foundation. China is one of the leaders in the global digital economy, taking a leading position in electronic information communication, telecommunications equipment production and telecommunications networks. In addition, ASEAN has also initially built a digital economy governance system, such as Singapore has a strong international voice in digital economy.

Second, China and ASEAN have strong complementarity in cooperation. Compared with China and other developed regions, the overall development of the digital economy in most ASEAN countries is slightly behind, and the ASEAN market is rich in resources but weak in competitiveness, but they have a large potential group of digital economy. Because of its geographical proximity, ASEAN will also become one of the preferred overseas places for China’s Internet platform promotion.

Third, the cooperation between China and ASEAN has a long history, similar culture and a high degree of institutionalization, which provides both a channel for digital economic trade and a platform and guarantee for deeper exchanges and communication between the two sides.

4. Future Challenges of China-ASEAN Digital Economy Trade

Although the cooperation between China and ASEAN in the digital economy industry has achieved initial results, and the demand for digital cooperation between the two sides is constantly rising, the cooperation still faces many problems.

4.1. Constraints of External Environment

Since the US launched a trade war against China in 2018 in order to consolidate its technological hegemony, many high-tech industries in China have been suppressed and technology blocked, and the Biden administration has constantly drawn Allies to establish international trade norms and technology facilitation systems with the US as its preference in the emerging digital field. These vicious competitions have damaged the stability and security of the industrial chain in the Asia-Pacific region. The cost of international trade and operational risks have increased significantly. The US technology competition measures against China are spillover, which is not conducive to China’s construction of digital infrastructure and digital technology services in the ASEAN region. In addition, due to historical issues, territorial disputes, practical interests and external provocations, some neighboring countries have a skeptical attitude toward dialogue, cognitive bias and strategic anxiety about China’s political and economic

strength. Despite the deep cooperative relationship between China and ASEAN (Wei & Liu, 2023), ASEAN still has doubts about China's rise and remains neutral on the Sino-US trade war, which is not conducive to the long-term digital trade situation.

4.2. ASEAN's Digitalization Level Is Unbalanced

At present, ASEAN countries have great differences in the development level of digital economy, digital infrastructure, digital economy governance system and other aspects, which not only causes the "digital divide" within ASEAN, but also is not conducive to the simultaneous trade cooperation between China and ASEAN countries. According to the World Digital Competitiveness Ranking 2022, Singapore ranked fourth, Malaysia ranked 31st, Indonesia ranked 51st, and the Philippines ranked 56th, while no other ASEAN countries made the list, and the 2021 Southeast Asia Digital Economy Report indicated that the other countries' markets except Indonesia are relatively small. In addition, the progress of infrastructure in the ten ASEAN countries is also inconsistent, the gap between the Internet penetration rate and broadband penetration rate is large, and the development level of the ICT industry is also relatively different, which poses challenges to the unification and specialization of the cooperation model.

4.3. Weak Research and Development of Digital Technology

Digital technology talents in the ASEAN region are far behind the speed of development of the digital economy, and the demand for talents in ASEAN countries has risen by more than three times, and the talent gap is large. Singapore, Malaysia and Thailand are actively absorbing and cultivating digital technology talents (Zhixiong & Business, 2016), but many enterprises are faced with the shortage of local talents and the difficulty of importing foreign talents, and the talent reserve is still in great demand. According to the 2021 World Economic Forum Survey, less than half of the workforce in Eastern European countries consider themselves proficient in digital skills. In addition, as a developing country, ASEAN lacks the ability of independent research and development and innovation in digital technology (Zhang, 2023). Some countries lack digital skills learning and training opportunities due to their small scale, and digital technology is highly dependent on multinational companies, which is very detrimental to the cooperation and exchange of digital economy between China and ASEAN.

4.4. The Digital Economy Governance System Is Not Sound

The digital economic governance systems of China and ASEAN are not perfect. Chinese government data security and sharing laws are relatively perfect, but the implementation results are not satisfactory, there are problems in the implementation of data lack of classification standards, unclear rules and other problems, and the degree of openness and legal system of provinces are too big. The legislative system of digital products is not perfect, and there are many problems

in some aspects such as regulatory gaps, unclear regulatory scope, and inter-departmental conflicts of interest. In particular, the setting of digital intellectual property rights and digital taxes is difficult to adapt to the development of the new digital era. The construction of digital laws and regulations in ASEAN member states is unbalanced, the development level of e-government is relatively different, and the network security level of Laos, Cambodia and Myanmar is low, and the consumer protection mechanism is not perfect. In addition, China and ASEAN need to establish a unified and perfect institutional system to build the “digital Silk Road”, but at present, the economic and trade rules and digital standards of the two sides are not well coordinated, and the degree of cooperation is not high, and there are obvious differences.

5. Conclusion and Discussion

The digital economic and trade cooperation between China and ASEAN is the focus of the digital Belt and Road Initiative and the key to upgrading the global value chains of both sides. Although the two sides have produced significant results in various aspects of cooperation, further in-depth cooperation still faces many challenges, so in the future, China should continue to create an open and shared cooperation environment, establish a digital economy industrial cooperation pattern with different ASEAN countries according to local conditions, help enhance the development and innovation capacity of the digital economy in the ASEAN region, and vigorously promote the release of cross-border e-commerce potential. Establish a coordinated digital governance system, deepen bilateral digital trade cooperation, and achieve win-win results.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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